

Injection molding grade with moderate flow; about 10% higher strength; rigidity and hardness than C 13021 Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 04-002 POM copolymer Easy flowing Injection molding type like C 13021, but with higher strength, rigidity and hardness over the entire permissible temperature range for HOSTAFORM; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 UL-registration for all colours and a thickness more than 1.5 mm as UL 94 HB; burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. Ranges of applications: For molded parts with higher requirements to strength, rigidity und hardness, ranges of applications with fuel contact. FDA = Food and Drug Administration (USA) UL = Underwriters Laboratories (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA).

ECO-B: Hostaform ECO-B is a POM-Copolymer with the same properties and performance as standard grades but produced with sustainability in mind. Using a mass-balance approach, biogenic feedstocks are used to offset the use of fossil-based raw materials and decrease greenhouse gas emissions. The process is audited and certified according to the ISCC Plus mass balance approach.

Product information

Part Marking Code	POM		ISO 11469
Rheological properties			
Melt volume-flow rate	12	cm ³ /10min	ISO 1133
Temperature	190		100 1100
Load	2.16		
Moulding shrinkage, parallel	2.0	-	ISO 294-4, 2577
Moulding shrinkage, normal	1.8		ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus	3050	MPa	ISO 527-1/-2
Yield stress, 50mm/min	68	MPa	ISO 527-1/-2
Yield strain, 50mm/min	8	%	ISO 527-1/-2
Nominal strain at break	28	%	ISO 527-1/-2
Flexural Modulus	3000	MPa	ISO 178
Compressive stress at 1% strain	31	MPa	ISO 604
Shear Modulus	1120	MPa	ISO 6721
Tensile creep modulus, 1h	2750	MPa	ISO 899-1
Tensile creep modulus, 1000h	1450	MPa	ISO 899-1
Charpy impact strength, 23°C	200	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	200	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.7	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m²	ISO 179/1eA
Ball indentation hardness, H 358/30	156	MPa	ISO 2039-1
Poisson's ratio	0.428		

Printed: 2023-08-07 Page: 1 of 11



-							100	
- 11	ner	m	al	n	r۸	ne	rtı	ies
			u	\sim	\sim	\sim	,, ,,	-

Melting temperature, 10 ° C/min	170	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	107	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	161	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	158	°C	ISO 306
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.155	W/(m K)	Internal

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	UL 94
Thickness tested	1.5	mm	UL 94
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3.00	mm	UL 94
UL recognition	yes		UL 94

Electrical properties

· · ·			
Relative permittivity, 100Hz	4		IEC 62631-2-1
Relative permittivity, 1MHz	4		IEC 62631-2-1
Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	50	E-4	IEC 62631-2-1
Volume resistivity	1E12	Ohm.m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	PLC 0	PLC	UL 746A

Other properties

Humidity absorption, 2mm	0.2 %	Sim. to ISO 62
Water absorption, 2mm	0.65 %	Sim. to ISO 62
Density	1410 kg/m ³	ISO 1183

Injection

Drying Temperature	100 - 120	°C	
Drying Time, Dehumidified Dryer	3 - 4	h	
Processing Moisture Content	0.15	%	
Melt Temperature Optimum	205	°C	Internal
Screw tangential speed	0.2 - 0.21	m/s	
Max. mould temperature	80 - 120	°C	
Back pressure	4	MPa	
Injection speed	slow-medium		

Printed: 2023-08-07 Page: 2 of 11



Characteristics

Additives Release agent, Biobased

Additional information

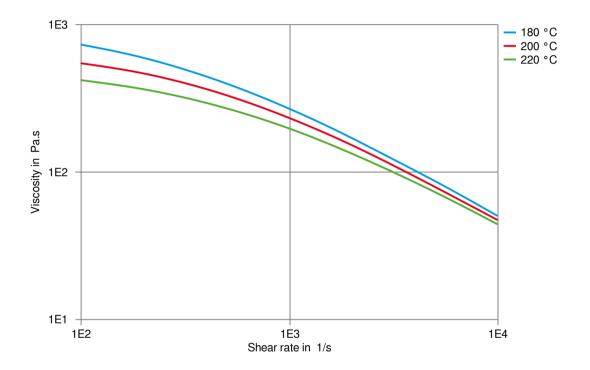
Injection molding Standard injection moulding machines with three phase (15 to 25 D)

plasticating screws will fit.

Printed: 2023-08-07 Page: 3 of 11



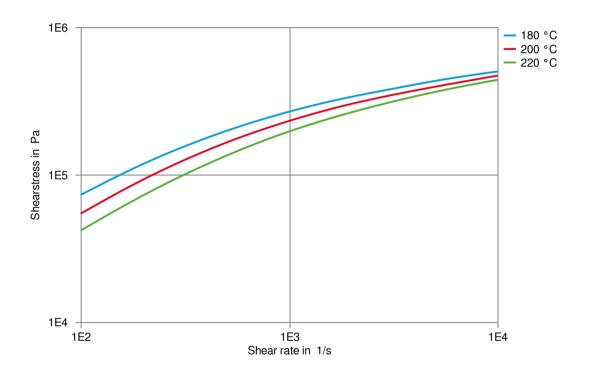
Viscosity-shear rate



Printed: 2023-08-07 Page: 4 of 11



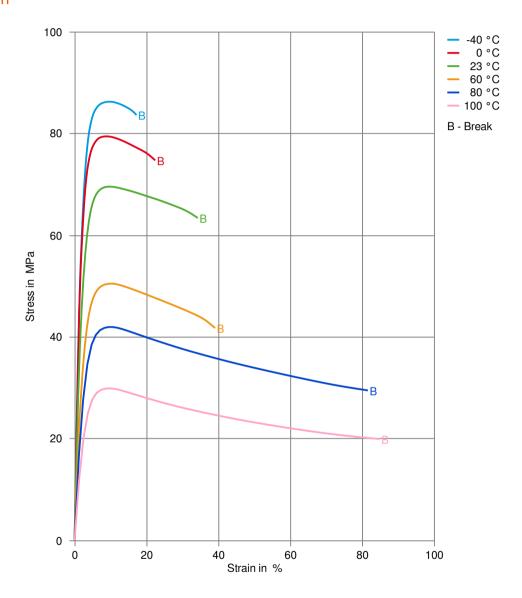
Shearstress-shear rate



Printed: 2023-08-07 Page: 5 of 11



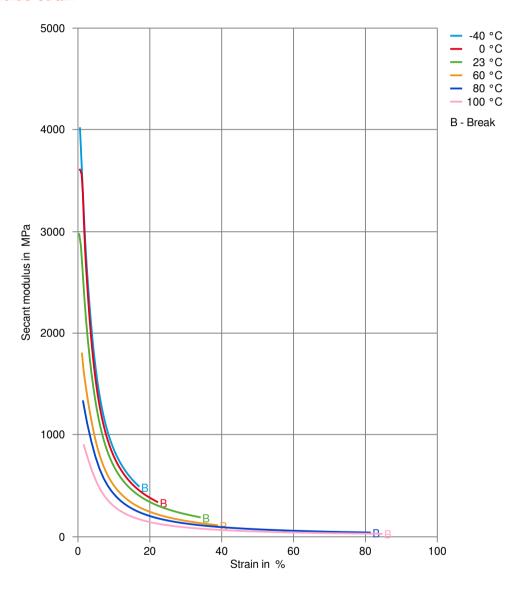
Stress-strain



Printed: 2023-08-07 Page: 6 of 11



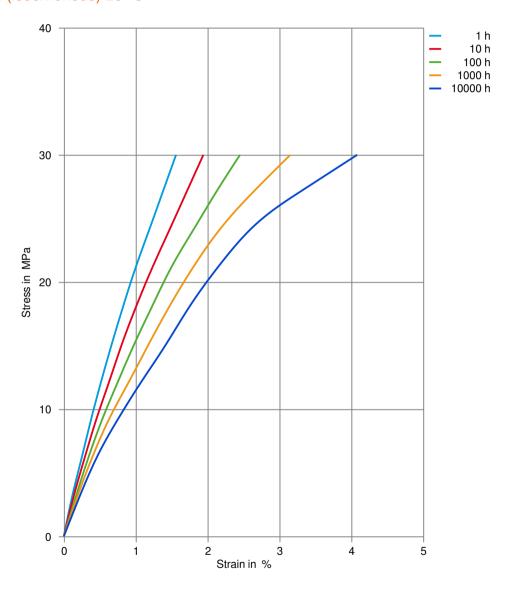
Secant modulus-strain



Printed: 2023-08-07 Page: 7 of 11



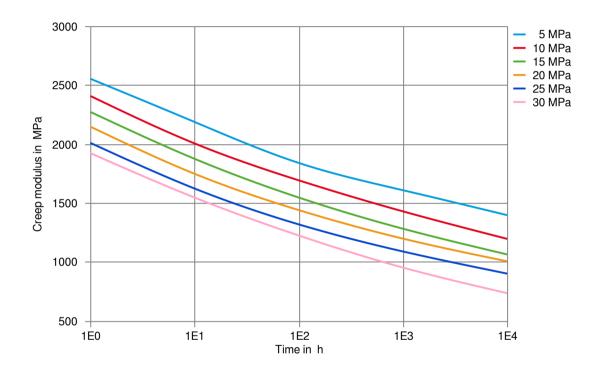
Stress-strain (isochronous) 23°C



Printed: 2023-08-07 Page: 8 of 11



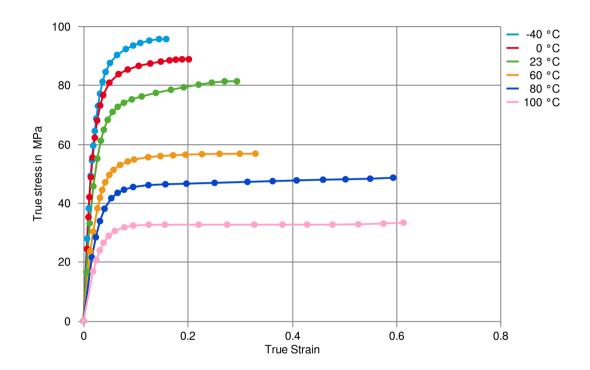
Creep modulus-time 23°C



Printed: 2023-08-07 Page: 9 of 11



True stress-strain



Printed: 2023-08-07 Page: 10 of 11



Processing Texts

Pre-drying Drying is not normally required. If material has come in contact with moisture

through improper storage or handling or through regrind use, drying may be

necessary to prevent splay and odor problems.

Longer pre-drying times/storage The product can then be stored in standard conditions until processed.

Injection molding Standard injection moulding machines with three phase (15 to 25 D)

plasticating screws will fit.

Injection molding Preprocessing General drying is not necessary due to low moisture absorption of

the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm

layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %

Injection molding Postprocessing Conditioning e.g. moisturizing is not necessary.

Printed: 2023-08-07 Page: 11 of 11

Revised: 2023-05-26 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, pr

© 2023 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.